

NOMENCLATURE OF THE AMERICAN SPECIES OF CORYMBORCHIS

BY
DONOVAN S. CORRELL

AT THE present time two species of *Corymborchis* are recognized in the Western Hemisphere: *Corymborchis flava* (Sw.) O. Ktze.—plants with yellow flowers having a lanceolate lip, and *Corymborchis cubensis* Acuña—plants with greenish or greenish white flowers having a linear-spatulate lip. A study of these species has revealed a most puzzling and interesting nomenclatorial history.

I. CORYMBORCHIS FLAVA (Sw.) O. Ktze.

In 1788, Swartz (Nov. Gen. & Sp. Pl. Prodr., p. 119) briefly described *Serapias flava*, a Jamaican plant having yellow flowers. Later, in 1806 (Fl. Ind. Occ., p. 1417), he changed the name of this plant to *Neottia flava* and supplemented his earlier description with an excellent and more detailed account of the plant. In writing of the lip he said, “*Labellum* basi canaliculato-concavum, columnam amplectens, *lamina* longitudine petalorum, lanceolata, erecta, nec apice recurva.”

In 1840, Lindley (Gen. & Sp. Orch. Pl., p. 484) described *Chloidia decumbens*, a Brazilian plant having flowers with a lanceolate lip. He stated that the sepals were yellow and the petals white with the outer surface yellow. At the same time Lindley cited Swartz’s species as possibly synonymous with his own. He wrote:

“I am uncertain whether this plant is the same as Swartz’s *Neottia flava*. So far as the description given by that author is concerned, there is no material discrepancy; except that he says the leaves of his plant are 2 or 3 feet long. Here they are not a foot in length. But if the stem of *N. flava* is erect, and the petals of the same

colour as the sepals, as seems to be implied, then it is probable that the West Indian plant forms a distinct species.”

What basis Lindley had for his comments on the length of the leaves and the manner of growth of the stem in Swartz's plant is not clear. Swartz, so far as we know, did not mention the exact length of the leaves of his specimen. However, he did state that the stem of his plant was “geniculato”—not erect. In these two concepts the color of the flowers seems to have been identical.

Although it should have been evident that both Swartz and Lindley were concerned with the same species when they wrote their individual descriptions, authors, with few exceptions, have continued to maintain both names. Lindley's *Chloidia decumbens* has been accepted for South American plants; whereas Swartz's *Serapias flava*, in turn, has been adopted for West Indian and Central American plants. This arbitrary acceptance of these two names has not only resulted in utter confusion in literature, but has retarded a realization of the true identity of the species of *Corymborchis* in this hemisphere.

In 1891, Otto Kuntze (Rev. Gen. Pl. 2, p. 658) combined these two concepts, which have yellow flowers with a lanceolate lip, under the new combination, *Corymborchis flava*.

***Corymborchis flava* (Sw.) O. Kuntze** Rev. Gen. Pl. 2 (1891) 658.

Serapias flava Swartz Nov. Gen. & Sp. Pl. Prodr. (1788) 119.

Neottia flava Swartz Fl. Ind. Occ. (1806) 1417.

Chloidia decumbens Lindley Gen. & Sp. Orch. Pl. (1840) 484.

Macrostylis decumbens Reichenbach filius in Bonplandia 2 (1854) 11.

Chloidia flava Reichenbach filius in Walpers Ann. Bot. 6 (1863) 644.

Corymbis flava Hemsley in Godman & Salvin Biol. Centr.-Amer. Bot. 3 (1884) 297.

Corymbis decumbens Cogniaux in Martius Fl. Bras. 3, pt. 4 (1895) 276.

The lip, the character of greatest diagnostic importance in *Corymborchis flava*, is broadly lanceolate, canalliculate, 7-nerved, dorsally carinate along the mid-nerve, about 14 mm. long and 5-6 mm. wide below the middle. It is broadly rounded on each side at the base and has an acute, minutely undulate apex. The disc has a linear intramarginal callus on each side extending from the base almost to the apex.

Corymborchis flava is found in the West Indies, Costa Rica, El Salvador (?), Panama and South America.

SPECIMENS EXAMINED:

COSTA RICA: Prov. Cartago, Cartago, at 1300 meters alt., April 1888, *Juan J. Cooper 5999* (Gray Herb. & U.S. Nat. Herb.); Finca Navarro, at 1350 meters alt., May 21-23, 1906, *W.R. Maxon 644* (Herb. N.Y. Bot. Gard.); Peralta, tall terrestrial orchid, in deep forest, May 6, 1926, *C.H. Lankester 1127* (Herb. Ames); Navarro, tall terrestrial (3 ft.), on wooded hillside of Atlantic slope, at 2000-4000 feet alt., March 12, 1929, *C.H. Lankester 1243* (Herb. Ames).

EL SALVADOR: Sierra de Apaneca, in the region of Finca Colima, "Coyolillo", erect, 2-4 ft. high, in forest, Departamento de Ahuachapán, Jan. 17-19, 1922, *P.C. Standley 20132* [flowers poor] (Herb. Ames & U.S. Nat. Herb.). [Owing to the advanced condition of this collection the determination is open to question.]

CUBA: Santa Catalina, terrestrial, 3-4 ft. high, Jan. 28, 1907, *C.F. Baker 970* (Herb. N.Y. Bot. Gard.); Oriente, Sierra Maestra, slopes of "El Gigante," a rather isolated top southeast of Bayamo on Rio Guisa, on the ground, at about 800 meters alt., Jan. 2, 1923, *E.L. Ekman 16070* (Herb. N.Y. Bot. Gard.); Suinor del Rio, 2 meters

high, in moist woods on limestone rocks at 480 meters alt., Rangel Mts., Aug. 1929, *Bro. Leon 14089* (Herb. N.Y. Bot. Gard.); Province of Santa Clara, Buenos Aires, Trinidad Hills, at 2500-3500 feet alt., Glen Ames (Mt. Harvard), July 24, 1930, *J.G. Jack 8078* (Herb. Ames).

GUADELOUPE: Terrestrial, rare, very humid places in woods, Bains Jaunes, 1895, *Père Duss 3813* (Gray Herb., U.S. Nat. Herb. & Herb. N.Y. Bot. Gard.).

PANAMA: Province of Chiriquí, terrestrial, flowers light cadmium, Llanos on slopes of Volcán de Chiriquí Viejo and along Río Chiriquí Viejo, at 1200 meters alt., April 20, 1935, *P.H. Allen 1009* (Herb. Ames).

COLOMBIA: Santa Marta, Onaca estate, erect, 3-4 ft. tall, two roots only observed in gully in mountain forest, 1898-1901, *H.H. Smith 2636* (Gray Herb. & Herb. N.Y. Bot. Gard.); Dept. Caldas, Río Santa Rita, Salento, dense forest, at 1600-1800 meters alt., perianth yellow, July 29, 1922, *E.P. Killip & T.E. Hazen 8982*, (Gray Herb.); Dept. Caldas, "Canaan", south of Salento, forest, at 1400-1700 meters alt., perianth yellow, July 31, 1922, *F.W. Pennell 9061* (Herb. Ames).

VENEZUELA: prope coloniam Tovar, 1856-7, *A. Fendler 1397* (Gray Herb.).

BRAZIL: Sta. Catharina, Rio Uruguay (Statio viae ferreae) in silva prim. ad terram, c. 400 m., Feb. 25, 1916, *P. Dusén 17790* (Gray Herb.); Queluz-S. Paulo, 1916, *P. Campos Porto 225* (Herb. Ames); S. Paulo, Serra Negra, Planta da matta, June 6, 1927, *F. C. Hoehne 31593* (Herb. N.Y. Bot. Gard.).

PARAGUAY: in regione fluminis Alto Paraná, 1909-1910, *K. Fiebrig 6463* (Herb. Ames, Gray Herb., & U.S. Nat. Herb.); Cerro Scahay, in silva terrestre, petala flava, Dept. Altos, April 1920, *T. Rojas* (Herb. Ames).

II. CORYMBORCHIS CUBENSIS *Acuña*

In 1939, Acuña included *Corymborchis flava* in his treatment of the Cuban orchids and also described a new species, *Corymborchis cubensis*, a plant whose greenish or greenish white flowers have a linear-spatulate lip.

It seems strange that the identity of this species was

not recognized prior to 1939, as specimens of it have been available in herbaria for more than one hundred and fifty years and it has been referred to in literature for about seventy-five years.

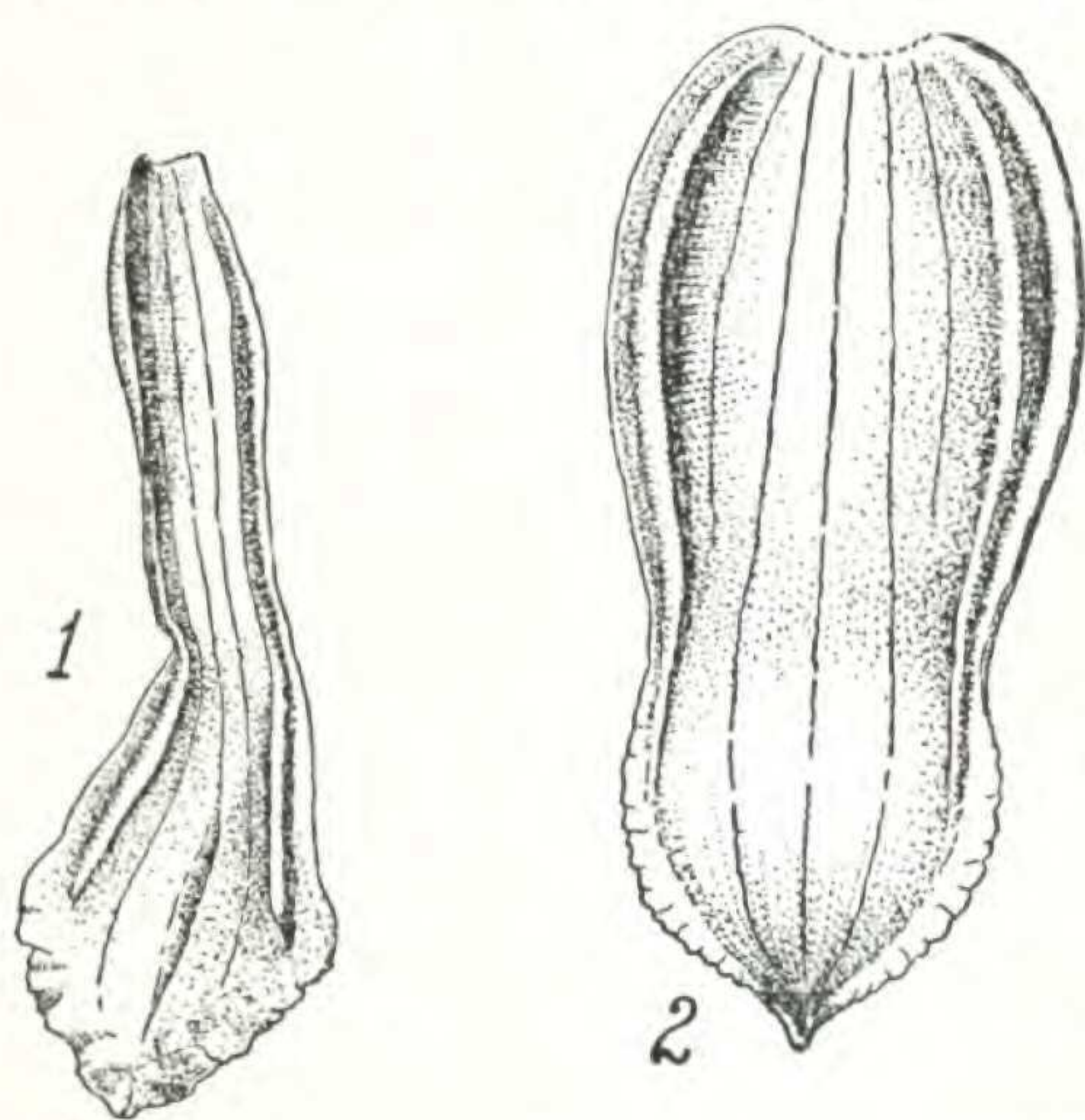
It is regrettable that Acuña's description of the species lacks a Latin diagnosis and consequently, according to the International Rules of Botanical Nomenclature, the name is not recognized as published. In order to validate Acuña's name, "cubensis", a Latin diagnosis and an amplified description are here given.

Corymborchis cubensis *Acuña* in *Estac. Exper. Agrón. Bol. Téc.* 60 (Cat. descr. Orquíd. Cub.) (1939) 51, ampl. *Correll*.

Corymbis flava Hemsl. sensu Cogniaux in *Urban Symb. Antill.* 6 (1909) 365. (exclude synonymy).

Chloidia flava Griseb. *Fl. Brit. West Ind.* (1864) 643. (as to description, not as to synonymy).

Planta robusta, elata. Caulis teres, erectus vel decumbens. Folia ampla, disticha, lanceolato-elliptica vel



1. *Corymborchis cubensis*, lip, three and one half times natural size.

2. *Corymborchis flava*, lip, three and one half times natural size.

Drawn March 1940 by G.W. DILLON

anguste lanceolata, longe acuminata, sessilia, plicata, prominenter nervosa. Inflorescentiae laterales, ex foliorum axillis exorientes, paniculatae; pedunculi graciles, squamosi. Bracteae inflorescentiae ovato-triangularis vel lanceolatae, acutae vel acuminatae, concavae. Flores arcuati, patuli. Sepalum dorsale lineare vel lineari-oblancheolatum, acutum vel acuminatum, car-

nosum, canaliculatum, dorso carinatum. Sepala lateralia lineari-oblongata, acuta vel acuminata, falcata, canaliculata, dorso carinata. Petala linearia vel oblongata, acuta vel acuminata, obliqua, dorso carinata. Labellum erecto-patulum, in positu naturali supra medium arcuato-decurvatum, in laminam lineari-spathulatam expansum, acutum, canaliculatum, dorso carinatum; discus bicallosus, calli intramarginales lineares. Columna clavellata. Capsula cylindracea.

Plant simple, tall, stout, erect, up to 2 meters high, leaf-sheaths peduncles and lower surface of the young leaves usually lepidote with brownish scales. Stem terete, occasionally geniculate at the base. Leaves large, crowded on the upper part of the stem, elliptic-lanceolate to narrowly lanceolate, long-acuminate, distichous, sessile, plicate and conspicuously many-nerved, 15–45 cm. long, 3–7.5 cm. wide. Inflorescences one to three lax corymbose panicles, arising in the axils of the uppermost leaves, up to 12 cm. long; peduncle slender, usually somewhat lepidote, up to 8.5 cm. long. Floral bracts ovate-triangular to lanceolate, acute to acuminate, concave and clasping at the base, 3–18 mm. long, 2–3 mm. wide near the base, those subtending the branches of the inflorescence longest. Flowers greenish white or white, arcuate, spreading. Sepals canaliculate, fleshy-thickened, conspicuously dorsally carinate along the mid-nerve; dorsal sepal linear to linear-oblongate, acute or shortly acuminate, incurved, 12–19 mm. long, 2–2.5 mm. wide above the middle; lateral sepals linear-oblongate, acute or abruptly and shortly acuminate, in natural position prominently falcate-recurved, 10–15 mm. long, 2–2.5 mm. wide above the middle. Petals obliquely linear to oblongate, acute or abruptly and shortly acuminate, somewhat dilated and concave at the apex with the margins crisped, thinner than the sepals, conspicuously dorsally carinate along the

mid-nerve, 11–13.5 mm. long, 2.5–3.5 mm. wide above the middle. Lip in natural position arcuate-decurved above the middle, when spread out linear-spatulate, acute, cucullate-concave and rounded at the base, dorsally carinate along the thickened mid-nerve, 11–14 mm. long; basal portion linear, canaliculate, 6–8 mm. long, 1.5–3 mm. wide; apical portion dilated, ovate to oval, reflexed, with the margins usually undulate-crisped, 5–6 mm. long, 3–4.5 mm. wide; disc with an intramarginal linear callus on each side extending from the base to about the middle of the apical portion. Column clavellate, terete below, 10–12 mm. long. Capsule cylindrical, ribbed, 1.5–2 cm. long.

Corymborchis cubensis is found throughout the West Indies, Mexico and Central America.

SPECIMENS EXAMINED:

MEXICO: pr. Mirador, in sylvis umbrosis pinus, March 1842, *Liebmänn* 6769 (U.S. Nat. Herb.); Mirador, March 1847, *Lehmann* 13.15.16 (Gray Herb.); Vera Cruz, Mt. Armalongo, east of Tezonapa, Cordova-Tierra Blanca, very shady parts in virgin forest, in tough peaty soil, grows up to 2 meters high, fls. greenish white, at 550 meters alt., Jan. 5, 1934, *Otto Nagel* 3585 (Herb. Ames); Vera Cruz, Mt. Armalongo, near Tezonapa, virgin forest in peaty soil, fls. greenish white, at 500 meters alt., Nov. 12, 1934, *Otto Nagel & Juan G.* 4105A (Herb. Ames).

GUATEMALA: Alta Verapaz, im Walde von Pansamalá, 1300 meters alt., Sept. 1886, *H. von Tuerckheim* 1021 (Herb. Ames & U.S. Nat. Herb.); Alta Verapaz, Cubilgüitz, 350 m. alt., auf losem humusreichem Waldboden, Nov. 1903, *H. von Tuerckheim* 8601 (U.S. Nat. Herb.).

COSTA RICA: El Silencio, at 800 meters alt., July 5, 1923, *J. Valerio* 143 (U.S. Nat. Herb.).

CUBA: prope villam *Monte Verde* dictam, Cuba Orientali, Jan.-Jul. 1859, *C. Wright* 1471 (Gray Herb.); 1860-1864, *C. Wright* 3312 (Gray Herb.); El Yunque, Mt. Baracoa, 5 feet tall, March 1903, *L. M. Underwood & F.S. Earle* 685 (Herb. N.Y. Bot. Gard.); Oriente, Farallon de La Perla, plant 3.5 dm. tall, flowers greenish, Feb. 14, 1911,

J. A. Shafer 8763 (Herb. N.Y. Bot. Gard.); Oriente, side and top of El Yunque, Dec. 20, 1910, *J. A. Shafer 8001* (TYPE in Herb. N.Y. Bot. Gard.; DUPLICATE TYPE in Herb. Ames No. 14353); Loma del Gato, Sierra Maestra, Dec. 1920, *Fre. Clement 489* (Herb. N.Y. Bot. Gard.); Pinar del Rio, Pan de Gualjaibón, highest mountain of Sierra de los Organos, northern slope, in forest, on ground, Jan. 9, 1921, *E. L. Ekman 12753* (U.S. Nat. Herb.).

HAITI: Massif du Nord, Port-de-Paix, Haut-Piton, hard limestone, at 1100 meters alt., Sept. 19, 1925, *E. L. Ekman 4860* (Herb. Ames & U.S. Nat. Herb.); damp soil in thicket, mountain road to Morne Rochelois, Miragoane and vicinity, Sept. 9, 1927, *W. J. Eyerdam 497* (Gray Herb., U.S. Nat. Herb. & Herb. N.Y. Bot. Gard.).

SANTO DOMINGO: Barahona, in feuchten Bergwaldungen, Bl. weiss, 850 meters alt., Sept. 1910, *Peter Fuertes 507* (Herb. Ames).

PUERTO RICO: Sierrade Sares in sylva prim. ad Guajataca *rara*, February 16, 1887, *P. Sintenis 6237* (U.S. Nat. Herb.); prope Ullulado in sylva prim. ad Cayuro, March 9, 1887, *P. Sintenis 6367* (U.S. Nat. Herb.).

Corymborchis cubensis usually occurs at much lower altitudes than *C. flava*. Both species are very similar in habit, being about the same height, and with coarse reed-like terete stems which are leafy above. *Corymborchis cubensis* has a grayish, usually lepidote peduncle; whereas *C. flava* has a smooth, reddish, glossy peduncle. The ultimate branches of the inflorescence of *C. cubensis* are usually more in number than in *C. flava*, and are conspicuously arcuate-descending; whereas those of *C. flava* are fewer in number and are usually suberect or ascending. The flowers of *C. cubensis* are comparatively thin and delicate in contrast to the leathery and fleshy flowers of *C. flava*.